

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A method of inducing expression of at least one gene in a cultured cell, comprising the steps of:
culturing at least one cell; and
contacting said cell with a transcription factor decoy oligonucleotide wherein said oligonucleotide:

i) is a contiguous single-stranded oligonucleotide;

ii) ~~encodes~~ comprises a shear stress response element sequence selected from the group consisting of GAGACC and GGTCTC ~~transcription factor binding site~~; and

iii) ~~encodes~~ comprises a sequence[s] complementary to ii.

Claim 2. (currently amended) The method of claim 1, wherein said oligonucleotide comprises a terminal ~~phosphothiorate~~ phosphothioate moiety and a phosphodiester backbone.

Claim 3. (previously presented) The method of claim 1, wherein said oligonucleotide passes cell membranes and accumulates in the nuclear compartment of said cell.

Claim 4. (canceled)

Claim 5. (previously presented) The method of claim 1, wherein said cultured cell is selected from the group consisting of an epithelial cell and an endothelial cell.

Claim 6. (previously presented) The method of claim 1, wherein said cultured cell is selected from the group consisting of renal cortical cell, renal fibroblast cell, hepatocyte, pancreatic islet, renal interstitial cell, parathyroid cell, thyroid cell, pituitary cell, ovarian cell and testicular cell.

Claim 7. (previously presented) The method of claim 1, wherein said cultured cell is grown in two dimensional culture.

Claim 8. (previously presented) The method of claim 1, wherein said shear stress response element transcription factor decoy sequence is selected from the group consisting of GAGACC and GGTCTC.

Claim 9. (previously presented) The method of claim 1, wherein one gene encodes a protein selected from the group consisting of megalin, cubulin, erythropoietin and 1- α -hydroxylase.

Claim 10. (previously presented) The method of claim 1, wherein the concentration of said oligonucleotide is from about 10 nM to about 10 mM.

Claims 11-26. (canceled)

Claim 27. (previously presented) The method of claim 1, wherein said cultured cell is grown in a rotating wall vessel.

Claim 28. (currently amended) A method of inducing expression of at least one renal tubular epithelial specific gene in a cultured cell, comprising the steps of:
culturing at least one cell; and
contacting said cell with a transcription factor decoy oligonucleotide wherein said oligonucleotide:

i) is a contiguous single-stranded oligonucleotide;

ii) ~~encodes~~ comprises a shear stress response element sequence selected from the group consisting of GAGACC and GGTCTC ~~transcription factor binding site~~; and

iii) ~~encodes~~ comprises a sequence[s] complementary to ii.

Claims 29-30. (canceled)

Claim 31. (currently amended) A method of increasing 1,25-dihydroxy-vitamin D3 levels in a cultured cell, comprising the steps of:

culturing at least one cell;
contacting said cell with a transcription factor decoy oligonucleotide
wherein said oligonucleotide:

- i) is a contiguous single-stranded oligonucleotide;
- ii) ~~encodes~~ comprises a shear stress response element sequence selected from the group consisting of GAGACC and GGTCTC ~~transcription factor binding site~~; and
- iii) ~~encodes~~ comprises a sequence[s] complementary to ii; and
determining the amount of 1,25-dihydroxy-vitamin D3.

Claim 32. (currently amended) A nucleic acid sequence ~~encoding a~~
~~transcription factor decoy oligonucleotide~~ wherein said oligonucleotide:

- i) is a contiguous single-stranded oligonucleotide;
- ii) ~~encodes~~ comprises a shear stress response element sequence selected from the group consisting of GAGACC and GGTCTC ~~transcription factor binding site~~; and
- iii) ~~encodes~~ comprises a sequence[s] complementary to ii.

Claim 33. (currently amended) The nucleic acid of claim 32, wherein
the nucleic acid comprises a ~~phosphothiorate~~ phosphothioate moiety and a
phosphodiester backbone.

Claim 34. (currently amended) The nucleic acid of claim 32, wherein
the nucleic acid ~~encodes~~ comprises SEQ ID NO: 1.

Claim 35. (currently amended) The nucleic acid of claim 32, wherein
a ~~phosphothiorate~~ phosphothioate moiety is substituted for a
phosphodiester in the nucleic acid backbone.

Claim 36. (canceled)

Claim 37. (currently amended) A nucleotide ~~encoding~~ sequence
consisting of SEQ ID NO.: 1.